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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,999	10/23/2003	Sameet H. Agarwal	MS306808.1/MSFTP535US	2461
27195	7590	03/09/2006	EXAMINER PICH, PONNOREAY	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			ART UNIT 2135	PAPER NUMBER

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,999

Applicant(s)

AGARWAL ET AL.

Examiner

Ponnoreay Pich

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/14/2005 has been entered.

Claims 1-3 and 5-33 are pending. Applicant's arguments have been considered, but are moot in view of new grounds of rejection presented below.

Claim Objections

Claims 1, 5-6, 22, 27, and 30 objected to because of the following informalities:

1. As per claim 1, in line 6, the examiner believes applicant meant to recite "variant at least second security policy" instead "at least second variant security policy" and "disparate at least second subsection" instead of "at least second disparate subsection".
2. Claims 5, 6, and 27 recites "the at least first and second". The examiner believes applicant meant "the at least first and at least second".
3. Claim 22 recites in line 3, "at least first and second variant security policies". The examiner assumes applicant meant "variant at least first and at least second security policies". Note later in the claim applicant refers to "at least first security

policy” and “at least second security policy”, not “at least second variant security policies”.

4. Claim 22 recites in line 5, “at least first and second disparate security regions”.

The examiner assumes applicant meant “disparate at least first and at least second security regions”. Note later in the claim applicant refers to “at least first security region” and “at least second security region”.

5. Similar corrections as claim 22 are recommended for claim 30.
6. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 30-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 30-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

1. Claim 30 has been amended to recite "a third data field that links the at least first security policy to the at least first security region and the at least second security policy to the at least second security region". The examiner respectfully submits that one of ordinary skill would not understand from applicant's disclosure how one single field, i.e. the third field, would link both the at least first security policy to the at least first security region and the at least second security policy to the at least second security region.
2. The examiner submits that it does not appear that the data structure as currently recited in claim 30 was originally disclosed by applicant in the specification when the current application was originally filed. Note that on page 18, starting at line 2, applicant discloses an example data structure that is to be used in applicant's invention. This data structure can further be seen on in Fig 5 of the drawings. The data structure does not seem to correspond with the data structure recited in claim 30 nor does the examiner see any other data structure disclosed in the specification that would correspond to the data structure as currently recited in claim 30. The amendment to claim 30 will not be entered as it appears to be new matter.
3. Any claims not specifically addressed are rejected by virtue of dependency.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3, 5, 8-9, 13-14, and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claim 2 recites "the hierarchical data structure". It is unclear to which hierarchical data structure of the "at least one hierarchical data structure" of claim 1 is being referred.
2. As per claim 5, it is unclear what it means for security policies to be mapped from within and from outside the data store.
3. Claim 8 recites the limitation that "the Access Control List **can be** associated with a holding relationship of a containment hierarchy". The language used therein seems to imply an intended use for the Access Control List, thus the metes and bounds of the claim is unclear.
4. Claim 9 recites the limitation that there is "a plurality of Access Control Lists **to facilitate security for the containment hierarchy**". The language used therein seems to imply an intended use for why there should be a plurality of Access Control Lists. However, it is unclear if applicant meant for there to actually be any facilitation of security for the containment hierarchy due to the plurality of Access Control Lists.
5. As per claims 13 and 14, it is unclear how a system can comprise an algorithm. The examiner suspects applicant may have meant that the system utilizes the algorithms recited in claims 13 and 14.

6. Claim 29 recites " the one or more disparate second security policies" in line 6, which lacks antecedent basis. It is unclear if it is meant to refer back to "one or more disparate second security policies" recited in lines 3-4.
7. Any claims not specifically addressed are rejected by virtue of dependency.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 5-20, and 29-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

1. Claim 1 is directed towards a system comprising a data store and a security component. Both the data store and the security components are software (see specification p6, lines 5-7 and p25, lines 1-11), thus the system of claim 1 is directed towards software per se and is not statutory. Applicant must recite a hardware component for the system of claim 1 for claim 1 to be statutory. Claims 2-3 and 5-20 are dependent on claim 1 and either further defines the software components of the system of claim 1 or further recites other components of the system which are also disclosed in the specification as being implemented as software. Thus claims 2-3 and 5-20 also are not statutory because they are directed towards software per se.
2. Claim 29 as recited is directed to software per se and is not statutory since the means which the system of claim 29 comprises are all disclosed in the

specification as software means. Applicant must recite either hardware or a means which is disclosed in the specification as hardware (and is not disclosed as capable of being implemented as entirely software) as part of the system of claim 29 for claim 29 to be statutory.

3. Claim 30 as recited appears to be directed towards non-functional descriptive material stored in memory. Note that the definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions". What applicant is calling a data structure in claim 30 is mere arrangement of data, thus is non-functional descriptive material. Claims 31-33 are also not statutory because the data fields defined in claims 31-33 also are non-functional descriptive material because they do not define a physical or logical relationship among data elements, designed to support specific data manipulation functions. For the computer readable medium of claim 30 to be statutory, applicant must specify in the claim how the fields of claim 30 specify a relationship designed to support a data manipulation function and specify what data manipulation function the data structure is meant to support.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2135

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-10, 18-22, 25-27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Carter et al (US 5,987,506).

Claim 1:

Carter discloses:

1. A data store that includes at least one hierarchical data structure that comprises a plurality of data items (Fig 1, Fig 2, and col 6, lines 3-40).
2. A security component that applies at least a first security policy to at least a first subsection of the data store and variant at least a second security policy to disparate at least a second subsection of the data store (col 4, lines 41-50 and col 41, lines 7-20).

The examiner has interpreted the term data store to mean anything that is being used to store data, i.e. databases, networks, hard drives, memory, etc.

Claim 2:

Carter further discloses the hierarchical data structure is at least one of a tree structure and a containment hierarchy (Fig 2).

Claim 3:

Carter further discloses the containment hierarchy is modeled as a Directed Acyclic Graph (DAG) (Fig 2).

Claim 5:

Carter further discloses the at least first and the at least second security policies are at least one of mapped from within the data store (col 4, lines 40-50) and mapped from outside the data store (col 41, lines 29-32).

Claim 7:

Carter further discloses the security component includes an Access Control List having one or more Access Control Entries (col 41, lines 7-50).

Claim 8:

Carter further discloses the Access Control List can be associated with a holding relationship of a containment hierarchy (Fig 3).

Claim 9:

Carter further discloses a plurality of Access Control Lists to facilitate security for the containment hierarchy (col 41, lines 29-37).

Claim 10:

Carter further discloses the security component specifies a set of principals that are granted or denied access to perform operations on an item (col 41, lines 29-37).

Claim 18:

Carter further discloses a security table, i.e. ACL, for similarly protected security regions (col 41, lines 6-50).

Claim 19:

Carter further discloses the security table includes at least one of the following fields an Item Identity, an Item Ordpath, an Explicit Item, a Path ACL, and a Region ACL (col 41, lines 29-37).

Claim 20:

Carter further discloses a component that does at least one of create a new item in a container, add an explicit ACL to an item, add a holding link to an item, delete a holding link from an item, delete an explicit ACL from an item and modify an ACL associated with an item (col 41, lines 29-39).

Claim 21:

Claim 21 is directed towards a computer readable medium having computer readable instructions stored thereon for implementing the security component of claim 1 and is rejected for the reasons given in claim 1.

Claim 22:

Claim 22 as recited is directed towards a computer-implemented method to facilitate data item security. The examiner asserts that the steps of the method recited in claim 22 are the steps necessary to implement the system recited in claim 1. As such, the limitations recited in claim 1 are rejected for substantially the same reasons given in claim 1.

Claim 25:

Carter further discloses processing security polices for at least one of a tree structure and a containment hierarchy (Fig 2 and col 40, lines 41-51).

Claim 26:

Carter further discloses mapping a security policy to a security region from a remote location from a database (col 4, lines 40-50).

Claim 27:

Carter further discloses the at least first and the at least second security policies are associated with an Access Control List having one or more Access Control Entries (col 41, lines 6-50).

Claim 29:

Claim 29 is directed towards a system with means for implementing the steps of the method of claim 22 and is rejected for the same reason given in claim 22.

Claims 30-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Belani et al (US 6,772,350).

Claim 30:

Belani discloses a computer readable medium having a data structure stored thereon, comprising:

1. A first data field related to a security region associated with a data store containing at least one hierarchical data structure (col 6, lines 63-66).
2. A second data field that relates to a security policy (col 6, lines 50-62).

A third data field that links the security policy to the security region must inherently exist in Belani's invention or there would be no way to associate the security region with a security policy.

Claim 31:

Belani further discloses a field for an access mask specifying at least one of object-specific access rights, standard access rights, and generic access rights (col 7, lines 42-48 and Fig 4).

Claim 32:

Belani further discloses a security field for similarly protected security regions (Fig 3, item 56).

Claim 33:

Belani further discloses the security field includes at least one of an Item Identity, an Item Ordpath, an Explicit Item, a Path ACL, and a Region ACL (Fig 3, item 56).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 11, 17, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US 5,987,506) in view of Belani et al (US 6,772,350).

Claim 6:

Carter discloses the at least first and the at least second security policies are at least one of explicitly mapped to an item (col 4, lines 40-50 and col 41, lines 21-50). Carter does not explicitly disclose security policies are inherited by an item.

However, Belani discloses security policies being inherited by an item (col 6, lines 50-61). At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention using Belani's teachings according to the limitations recited in claim 6. One of ordinary skill would have been motivated to do so because Belani's teachings would allow Carter to be able to more efficiently control access to resources in a distributed computing environment, i.e. such as that found in Carter's invention (Carter: Fig 1).

Claim 11:

Carter does not disclose the following limitation, but it is disclosed by Belani: "the security component includes at least one of discretionary access control list, a system access control list, and a security identifier (col 5, lines 8-12 and col 6, lines 63-66). At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 11 in light of Belani's teachings. One of ordinary skill would have been motivated to incorporate Belani's teachings for the same reasons given in claim 6.

Claim 17:

Carter does not disclose the security component further comprises an access mask specifying at least one of object-specific access rights, standard access rights,

Art Unit: 2135

and generic access rights. However, Belani discloses the limitation (col 7, lines 42-48 and Fig 4). At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 17. One of ordinary skill would have been motivated to incorporate Belani's teachings within Carter's invention for the same reasons given in claim 6.

Claim 23:

Carter discloses automatically supporting at least one explicit security policy (col 4, lines 40-50 and col 41, lines 21-50). Carter does not explicitly disclose supporting inherited security policy.

However, Belani discloses supporting inherited security policy (col 6, lines 50-61). At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention using Belani's teachings according to the limitations recited in claim 23. One of ordinary skill would have been motivated to incorporate Belani's teachings within Carter's invention for the same reasons given in claim 6.

Claims 12, 15, 16, 24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US 5,987,506) in view of Dennis et al (US 6,466,932).

Claim 12:

Carter does not explicitly disclose an ordering component that arranges one or more Access Control Entries (ACE) in an Access Control List (ACL) to determine a

Art Unit: 2135

security policy that is enforced for an item. However, Dennis discloses this limitation (col 7, lines 7-11 and col 8, lines 26-31).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 12 in light of Dennis's teachings. One of ordinary skill would have been motivated to do so because Dennis teachings would allow for a way for an administrator to handle conflicting policies and manually set group security policies (col 7, lines 7-11).

Claim 15:

Carter further discloses a component that evaluates access rights for a given principal to a given data item (col 41, lines 41-50).

Claim 16:

Carter does not explicitly disclose the security component further comprises an effective access control list that is obtained by processing lists inherited by an item and adding inheritable access control entries in an explicit access control list. However, this limitation is disclosed by Dennis (col 7, lines 7-21).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 16. One of ordinary skill would have been motivated to incorporate Dennis's teachings in Carter's invention for the same reasons given in claim 12.

Claim 24:

Carter does not explicitly disclose automatically ordering security policies. However, Dennis discloses this limitation (col 8, lines 26-31).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 24. One of ordinary skill would have been motivated to incorporate Dennis's teachings in Carter's invention for the same reasons given in claim 12.

Claim 28:

Carter does not explicitly disclose automatically arranging one or more Access Control Entries in the Access Control List to determine a security policy that is enforced for an item. However, Dennis discloses this limitation (col 8, lines 26-31).

At the time applicant's invention was made, it would have been obvious to one of ordinary skill in the art to modify Carter's invention according to the limitations recited in claim 28. One of ordinary skill would have been motivated to incorporate Dennis's teachings in Carter's invention for the same reasons given in claim 12.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al (US 5,987,506) in view of Dennis et al (US 6,466,932) and further in view of Belani et al (US 6,772,350).

Claim 13:

Carter does not explicitly disclose the ordering algorithm as recited in claim 13. However, Belani discloses inherited ACL's on a data item, i.e. resource node (col 8,

lines 63-66). Further, Dennis discloses ranking the security policies in an access list (col 8, lines 26-31). These two teachings read on the algorithm as recited in claim 13.

At the time applicant's invention was made, it would have been obvious to incorporate Dennis and Belani's teachings to further modify Carter's invention according to the limitations recited in claim 13. One of ordinary skill would have further motivated to include Belani's teachings for the same reasons given in claim 6.

Claim 14:

Carter does not explicitly disclose the ordering algorithm as recited in claim 14. However, Belani discloses inherited ACL's on a data item, i.e. resource node (col 8, lines 63-66). Further, Dennis discloses ranking the security policies in an access list (col 8, lines 26-31). These two teachings also read on the algorithm as recited in claim 13.

At the time applicant's invention was made, it would have been obvious to incorporate Dennis and Belani's teachings to further modify Carter's invention according to the limitations recited in claim 14. One of ordinary skill would have further motivated to include Belani's teachings for the same reasons given in claim 6.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 9:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ponnoreay Pich
Examiner
Art Unit 2135

PP


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